

What is claimed is:

1. A drive system for a hinged gate of a vehicle, comprising:

a motor unit including a motor, gears for reducing speed of the motor, and a casing for accomodating the gears;

5 a rack and pinion mechanism including a pinion driven by the motor unit and a rack movably supported on the casing of the motor unit;

a link member connected to a point of the hinged gate of the vehicle; and

10 a shaft member fixed to the rack, to which the link member is rotatably connected, wherein

the casing is provided with a guide casing extending in a longitudinal direction of the rack, and wherein

the guide casing is formed to have a closed section  
15 surrounding the shaft member and is provided therein with a guide member configured for guiding the rack.

2. The drive system according to claim 1, wherein

the guide member is fixed on an inner surface of the guide  
20 casing and is provided with a guide groove into which an end portion of the shaft member is slidably fitted.

3. The drive system according to claim 1, wherein

the shaft member is provided with a roller rotatably  
25 supported thereon and the guide casing is formed to have a track for the roller.

4. The drive system according to claim 2, wherein  
the guide member is made of a synthetic resin and is  
configured to be in sliding contact with a side face of the  
5 rack.

5. The drive system according to claim 1, wherein  
the shaft member is provided with a joint member by which  
the link member is connected, and the joint member allows the  
10 link member to rotate about an axis that crosses the shaft  
member.

6. The drive system according to claim 5, wherein  
the guide casing is provided therein with a cushion  
15 member for receiving the link member rotated about the axis  
that crosses the shaft member.